SEBI Prelims 2020 Paper 1
Memory Based
Previous Year Questions
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(in English)

Direction: Read the passage given below and answer the questions that follow.

There's large-scale, and then there's Indian-scale. Until recently, there were moves to ensure that all passenger vehicles sold by 2030 were electric vehicles (EVs). The latest reports suggest that instead of a mandate or target, the government should focus on an enabling framework for EVs. Either way, there should be millions of them on the road in the coming years.

Most worries **hinge** on battery costs and manufacturer readiness. That should come, driven not just by India but by global EV trends. A more India-specific concern will be that of the electricity grid. Can it handle this demand? How does this help the environment if most power comes from coal-fired power? A simple answer given by many is that we will use solar photovoltaics (PV) to charge EVs. This marriage of EV and PV is much harder than people think, but concerted action and policies that rethink electricity's ecosystem and pricing can make EVs both greener and cheaper to run.

Renewable energy (RE), primarily wind and solar, as deployed today is intermittent and opportunistic—take it when you can. Solar power has a well-known bell-curved shape for maximum possible output, with a peak around noon, falling to zero output by night. Therefore, for anyone plugging in an EV, or even switching on a light bulb, this means that RE may at best contribute some fraction of energy at different times (the wind often does blow overnight). Location doesn't matter so much if we assume an integrated national grid, since electrons are fungible. No grid-based consumer can easily tell whether their consumption is from a particular source of generation—it's all blended. RE supplies about 6.6% of the generation today, on average. As RE grows, through equally ambitious government targets of 175 gigawatts (GW) of RE by 2022, its share may become almost 20%.

India's first EVs are likely to be fleet vehicles, especially taxis, buses, etc. When are they likely to plug in to charge? They are unlikely to be stationary and plugged-in midday. Even for personal vehicles, a lot of charging may happen at home, especially overnight, in the absence of **ubiquitous** EV charging infrastructure—building such infrastructure in India is harder than in many countries due to land and grid limitations.

Overnight charging is good in many ways since it can use off-peak and "surplus" power, and less expensive, lower-speed charging may suffice, compared to expensive fast-charging technology. But overnight also rules out solar energy, except in a yet unproven model of battery swapping, which may anyway be geared more towards selected fleet vehicles.

EVs can and should use RE as much as possible. If we have EVs sooner than "surplus RE", we can still use coal—while not ideal from a carbon perspective, during lean periods it is the cheapest power available. Its fuel-only incremental costs could be as low as one rupee per kilowatt-hour in some places, far cheaper than new RE. Moreover, it may be a blessing in disguise for the power sector as a whole where coal-based generation assets are stressed due to low demand,

reaching historically low utilization factors. Plus, domestic coal supplies most of our power, unlike oil. A scholar famously termed EVs as EEVs—emissions elsewhere vehicles. But "elsewhere" may still be worthwhile, given that point sources like coal plants are easier to clean up than millions of cars, reducing India's palpable air pollution. This outweighs today's minimal improvements in carbon emissions.

1. Choose the word/group of words that is MOST SIMILAR in meaning to the word/group of words printed in bold as used in the passage.
Hinge
A. Crux
B. Depend
C. Bland
D. Spurious

2.Choose the word/group of words that is MOST SIMILAR in meaning to the word/group of words printed in bold as used in the passage.
Ubiquitous
A. Sporadic
B. Scarce
C. Limited
D. Omnipresent

3.Which of the following is/are **true** with reference to the passage?

I. The passage states that the Indian government should not focus on an enabling framework for EVs.
II. Change in the electricity's ecosystem via policies can make electronic vehicles both greener and cheaper to run.

III. Until recently, the government wanted that all passenger vehicles sold by 2030 were electric vehicles.
A. Only I
B. Both II and III
C. Both I and II
D. Only III

4.What, as per the passage, will happen when electronic vehicles will use non-renewable energy sources such as coal?

I. Cost will be low as the price of electricity is cheaper than renewable energy resources.
II. Coal-based generation assets that are unused due to low demand will be used to meet the demands created by electronic vehicles.
III. Import of coal will not be needed due to domestic supply.
A. Only I
B. Only II
C. Only III
D. All of the above

5.Which of the following is true about solar power in India?
I. Renewable energy, primarily consists of wind and solar energy, is intermittent and opportunistic in nature.
II. Solar power has a well-known bowl-curved shape for maximum possible output.
III. Renewable Energy may at best contribute some fraction of energy at different times.
A. Only I
B. Only II
C. Only I and III
D. Only II and III

Direction: In the questions given below, a blank has been provided for each and needs to be filled with the appropriate word. Choose the best option among the given ones.

6.
Eustace is said to have been under the impression that they meant to attack Calais in his absence, and to have _____ them because he had left the town well guarded.
A. Denuded
B. Derided
C. Lauded
D. Simulated

7. From Switzerland he passed in six months to England, where he formed acquaintances with other French exiles and with prominent British statesmen, and _____ a lasting admiration for the English Constitution.
A. Exhume
B. Entwined
C. Tangible
D. Imbibed

8. While the _____ summer dress is relaxed and carefree, its formal counterpart offers a stunning alternative for special occasions.
A. Quintessential
B. Stunned
C. Flawed
D. Primitive

Direction: Rearrange the following six sentences A, B, C, D, E, and F in the proper sequence to form a meaningful paragraph and then answer the question given beside

A. The four major stages, according to Perry, is dualism, multiplicity, relativism, commitment, which is further subdivided into nine stages.
B. The theory proposed by William G Perry is based on a lifetime of studying cognitive and ethical development in undergraduate students.
C. Perry's scheme tells us that not only are our beliefs subject to change but the way a person reasons changes as that person matures.
D. He proposes that college students (but others, too) "journey" through four major stages of intellectual and moral development.
E. Furthermore, his scheme is subtle, and especially valuable because he delineates why and how a person transitions from one position to another.
F. One can conclude the fact that the rate at which we progress through the positions differs from one subject or issue to another and the same person can be at different stages at the same time with respect to different subjects.

9.
Which of the following would be the FOURTH sentence after rearrangement?
A. E
B. F
C. D
D. C

10. Which of the following would be the LAST sentence after rearrangement?
A. E
B. F
C. D
D. C

11. Which of the following would be the FIRST sentence after reamangement?
A. A
B. C

C. F
D. B

12.Which of the following would be the SECOND sentence after rearrangement?
A. B
B. F
C. D
D. C

13.Which of the following would be the THIRD sentence after rearrangement?
A. A
B. F
C. C
D. E

Direction: Identify the words that are similar in meaning to the phrase in bold. If none of option conveys the correct meaning, mark (E) as your answer. The options do not necessarily need to be grammatically correct.
14.
Rather than **reinventing the wheel** by creating a new body of code for each app they develop, software engineers essentially mix-and-match existing libraries and packages for common functions.
A. Wasting time
B. Construct a wheel
C. Repeating thoughts
D. Growing continuously

15.Fans are confused as to whether Mary forgets the offensive things she says or if she's merely lying to **save face.**
A. Enhance dignity
B. Avoid humiliation
C. Reverse the decision
D. make it difficult

16.With renewed emphasis on a well - balanced lifestyle, demand for inclusive spacious homes in suburban locations have **gained ground.**
A. Increase in quantity
B. Become Popular
C. Lose momentum
D. Market capitalization

17.She finds rejection everywhere and is always told to keep a **stiff upper lip** and not cry.
A. Stoic demeanour
B. Emotional outburst
C. Physical injury
D. Agitated state

Direction: In the following questions, two related sentences I and II are given. There may be an error in the sentence(s). You have to find the error and then select the correct option from those given after the sentences.
18.
I. Manpower and logistic support crunch is adversely affecting the performance of the Excise Department.
II. Reports said each Excise office while should have at least 5 personnel including a sub inspector and constables yet none of them has the full sanctioned strength.
A.
If there is one error in the first sentence.

B. If there is one error in the second sentence.
C. If there are multiple errors in both sentences.
D. If there is no error in both the sentences.

19.

I. She was quite candidly about the way the case had been handled.
II. The story of this film is funny, heart-warming and hugely impacting.
A. If there is one error in the first sentence.

B. If there is one error in the second sentence.
C. If there are multiple errors in both sentences.
D. If there is single error in both sentences.

Direction: In the following questions, a sentence has been broken into parts Identify the parts, which are correct in terms of grammar, spelling and logical consistency. Then choose the most appropriate answer.
20.
A) The team owners engaged
B) in controversial about whether
C) or not they should gave the
D) star athlete his desired salary.
A. A & D
B. A, B & D
C. A, B & C
D. B,C & D

Direction: In the following number series, only one number is wrong. Find out the wrong number.
21. 158, 80, 42, 24, 18, 13
A. 80
B. 42
C. 18
D. 24

Direction: In the following number series, only one number is wrong. Find out the wrong number.
22. 44, 44, 50, 74, 136, 254, 464
A. 464
B. 50

C. 74
D. 136

Direction: In the following number series, only one number is wrong. Find out the wrong number.
23. 39, 19, 18, 25.5, 49, 118
A. 118
B. 49
C. 25.5
D. 18

Direction: In the following number series, only one number is wrong. Find out the wrong number.
24.
8, 12, 21, 33, 62, 98, 147
A. 12
B. 21
C. 98
D. 33

**Direction**: In the following number series, only one number is wrong. Find out the wrong number.
25. 130, 133, 128, 136, 120, 152, 88
A. 152
B. 88
C. 133
D. 128

Direction: Study the following information carefully and answer the question given below.
In the pie chart given below, the percentage distribution of the number of students attended online classes in a school on six different days – Monday to Saturday is given. Total number of students who attended online class is 2500.
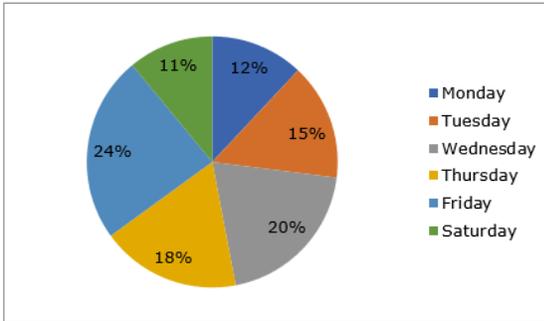
26. If 16% of the students attended online class on Monday is from class IX and 24% of the students attended online class on Thursday is from class IX, what is the total number of students attended online class from class IX on Monday and Thursday together?
A. 140
B. 156
C. 124
D. 150

27. What is the difference between the average numbers of students attended online classes on Tuesday and Saturday together to that on Monday and Friday together?
A. 125
B. 80
C. 100
D. 145

28. If the ratio of the number of boys to girls who attended online classes on Wednesday is 3 : 2 and the number of boys to girls who attended online classes on Friday is 2 : 1, what is the sum of the number of boys who attended online classes on Wednesday and Friday?
A. 750
B. 840
C. 640
D. 700

29. What is the ratio of the number of students who attended online classes on Tuesday and Friday together to that on Monday and Thursday together?
A. 12 : 7
B. 10 : 9
C. 13 : 10
D. 8 : 5

30. The number of students attended online classes on Monday and Tuesday together is how much percentage more than the number of students attended online classes on Friday?
A. 18%
B. 20%
C. 10%
D. None of these

31. Ashutosh sells a toy to Arpit at a profit of 24%. Arpit sells the same toy to Mansi at a profit of 30%. Mansi in turn sells this toy to Sheetal for Rs. 241.8, thereby earning a profit of 20%. The cost price for the Ashutosh is :
A. Rs. 125
B. Rs. 200
C. Rs. 175
D. Rs. 150

32. A store declared 20% discount on its cloths. Ramesh bought cloths worth Rs. 9000 after getting discount. Now he fixed the selling price of the cloths in such a way that he got a profit of 30% on the marked price. Find the selling price of the cloths for Ramesh.
A. Rs. 12225
B. Rs. 12375
C. Rs. 16275
D. Rs. 21540

33. A man can row upstream at the speed of 6 km/hr. If the speed of the

current is 2 km/hr, then it takes 3 hours more in upstream direction than the downstream direction for travelling the same distance. Find the distance travelled by man in downstream direction.
A. 48 km
B. 45 km
C. 51 km
D. 42 km

34.A pipe can fill a tank in 48 hours and another pipe can empty this tank in 30 hours. If both the pipes are opened simultaneously in completely filled tank and in 2.5 hours, 60 litres of water is emptied from the tank, then find the capacity of tank.
A. 1460 litres
B. 1920 litres
C. 1430 litres
D. 1820 litres

35.The distance between two railway stations P and Q is 320 km. Speed of train A is 60 km/h and it starts from station P at 11 am. Train B running at 70 km/h starts from station Q, one hour after the train A. At what time these two trains will meet each other?
A. 3:15 pm
B. 1:30 pm
C. 2:30 pm
D. 2:00 pm

36.A vessel is filled with milk and water, 4 parts of which are water and 5 parts are pure milk. How much of the mixture must be drawn off and replaced with water so that the mixture will be half water and half pure milk juice?
A. $\dfrac{13}{90}$

B. $\dfrac{11}{90}$

C. $\dfrac{17}{90}$

D. $\dfrac{79}{90}$

37.Manish's age is 28 years more than his brother's age. 7 years ago, the Manish's age was two times the brother's age that time. What is the present age of Manish's brother?
A. 39 years
B. 18 years
C. 42 years
D. 35 years

38.60% of 1st number is 36 more than 30% of 2nd number. 2nd number is 60 more than the first number. 1st number is how much percent more or less than that of the 2nd number?
A. 35%
B. 25%
C. 30%
D. 50%

39.The length of a rectangle is 80% of the side of a square. The radius of a circular ground is three fourth of the side of the square. The circumference of the circle is 396 m. What is the area of the rectangle if the breadth of the rectangle is 40 m?
A. 1008 sq. m
B. 1016 sq. m
C. 2688 sq. m
D. Cannot be determined

40.Average of four consecutive odd numbers in 32 and average of four consecutive even numbers is 37. Find the average of the highest odd and the highest even number.
A. 39.5

B. 32
C. 29
D. 37.5

Direction: Study the following information carefully and answer the given questions.

Point A is 10m South of Point B. Point C is 22m east of Point B. Point H 5m south of Point C. Point D 15m east of Point H and Point M 4m south of Point D

41.
If a man has to travel to Point M from Point A (through these points by the shortest distance), which of the following points will be pass through first?
A. B
B. C
C. D
D. H

42.Point M is in which direction with respect to Point A?
A. East
B. West
C. South West
D. North east

43.If in the number 725174538, 2 is added to first four digits of the number and 1 is added to last five digits of the number, then which amongst the following digits are repetitive?
A. Only 7
B. Only 9
C. Both 9 and 4
D. Only 4

Direction: Study the following information and answer the given questions.

Seven People i.e. A, B, C, D, E, F and G live in a seven-floor building. The lowermost floor is numbered as 1, the floor above it numbered as 2 so on till the last floor which is numbered as 7. They all like different colours. All the information is not necessarily in the same order.

F lives on an even numbered floor above floor number 2. Two people live between F and the one who likes Yellow. The one who likes Yellow lives below F. Three people live between B and the one who likes Yellow. Number of people live above B is same as live below D. Three people live between D and the one who likes Blue. Two people live between the one who likes Blue and the one who likes Red. E lives above the one who likes Red on an even numbered floor. One person lives between E and the one who likes White. The one who likes Pink lives above the one who likes Black but below the one who likes Brown. A does not like blue and lives above C

44.
How many people live above the one who likes Pink?
A. Four
B. One
C. Three
D. Two

45.How many people live between the one who likes Yellow and C?
A. One
B. Three
C. Four
D. None

46.Who amongst the following likes Black?
A. D

B. C
C. A
D. E

47.B likes which of the following colour?
A. Blur
B. Brown
C. White
D. Pink

48.How many people live below the one who likes Blue?
A. Three
B. One
C. Four
D. Two

Direction: In the question below are given three statements followed by the conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

49.
Statements:
Some Colour is Tube
All Tube is Brush
Only a few Brush is Paint
Conclusions:
I. Some Paint being Tube is a possibility
II. Some Brush is Colour
A. Only I follows
B. Only II follows
C. Both I and II follows
D. Either I or II follows

50.
Statements:
Some Copy is Sheet
No Sheet is Paper

All Note is Copy
Conclusions:
I. No Note is Sheet
II. Some Sheet is Note
A. Only I follows
B. Only II follows
C. Both I and II follows
D. Either I or II follows

51.
Statements:
Some Signal is Tower
Some Tower is Process
All Process is Upload
Conclusions:
I. All upload being Signal is a possibility
II. Some Signal is Process
A. Only I follows
B. Only II follows
C. Both I and II follows
D. Either I or II follows

52.
Statements:
Some Sim is Mobile
All Mobile is Charge
All Charge is Battery
Conclusions:
I. Some Battery is not Sim
II. Some Charge is Sim
A. Only I follows
B. Only II follows
C. Both I and II follows
D. Either I or II follows

53.How many such pairs of letters are there in the word **RADIATION** each of which has as many letters between them as in the English alphabet in both forward and backward directions?
A. Three
B. One
C. Two
D. None

Direction: A passage is given followed by question/questions. Select the best answer of the choices given.

The aeroplane rolled to a stop beside us, no extra power required and the propeller clanked softly to stop. I looked closely. There were no bugs on the propeller. Not so much as a single fly killed on that eight-foot blade.

54. Taking the cue from the passage, which of the following would have happened, if a normal plane landed on an airfield?

A. There will be bugs on the propeller.
B. At least one fly will be killed on that blade
C. The propeller would not clank softly when it came to a stop
D. All the above

Direction: A statement is given followed by three inferences numbered I, II, and III. Consider the statement to be true even if it is at variance with commonly known facts. You have to decide which of the inferences, if any, follow from the given statement.

55. **Statement:**
The past decade has seen the biggest financial crisis in a century, the biggest slump since the Great Depression and the slowest recovery since the second world war.

Inferences:
I. Living standards have been flat-lined and public spending has been cut.
II. Rapid technological changes are happening at a time when the global economy seems fragile and people are angry, frustrated, and anxious.
III. We are living in an age of insecurity where the public have lost all faith in democracy and their elected leaders.

A. Only I can be inferred
B. Only II can be inferred
C. Both I and II can be inferred
D. Both II and III can be inferred

Direction: Study the following information carefully and answer the given questions.

Eight people i.e., A, B, C, D, E, F, G and H are sitting around a circular table with equidistance to each other but not necessarily in the same order. Some of them face inside the table and some face outside the table. B sits third to the right of D. Two people sit between B and A. G sits to the immediate right of A who faces inside the table. E sits second to the left of G. C sits to the immediate right of E who faces outside the table. F sits third to the right of C. Both H and C face the same direction. Immediate neighbours of H face the opposite direction to H.

56.
What is the position of H with respect to G?
A. Second to the right
B. Third to the right
C. Immediate left
D. Immediate right

57. Who sits third to the left of H?
A. B
B. E
C. A
D. C

58. How many people face inside the table?
A. Four
B. Two
C. One
D. Five

59.Four of the following five are alike in a certain way and hence form a group. Which amongst the following does not belong to that group?
A. G
B. F
C. A
D. H

60.How many people sit between G and C when counted from right of C?
A. Three
B. More than three
C. None
D. One

61.The iconic Indian superhero - Chacha Chaudhary has been declared as the mascot of the which flagship programme?
A. Namami Gange Programme
B. Sarva Shiksha Abhiyan
C. PM Poshan Shakti Mission
D. Intensified Mission Indradhanush (IMI) 3.0

62.The Pension Fund Regulatory and Development Authority (PFRDA), the regulator of the NPS, has doubled the minimum net worth criterion for pension fund managers to how much amount?
A. 200 crore
B. 25 crore
C. 30 crore
D. 50 crore

63.Which International organisaztion has decided to introduce a prestigious ward "Bangabandhu Sheikh Mujibur Rahman" International Prize in the Field of Creative Economy"?
A. UNGA
B. UNDP
C. UNESCO

D. UNICEF

64.Who has authored the book titled "Pioneer of Humanity: Maharishi Arvind"?
A. Ramesh Pokhriyal Nishank
B. Ram Nath Kovind
C. Venkaiah Naidu
D. Ravishankar Prasad

65.Where did Union Minister of Earth Sciences Dr. Harsh Vardhan virtually inaugurate India's highest Meteorological Centre?
A. Guwahati
B. Shillong
C. Shimla
D. Leh

66.Who has been appointed as the deputy election commissioner in the Election Commission of India?
A. Umesh Sinha
B. Vineet Agarwal
C. Soma Mondal
D. Shashi Shekhar Vempati

67.India's first Lithium refinery is to be set up in which of the following state?
A. Gujarat
B. Rajasthan
C. Maharashtra
D. Odisha

68.National Consumer Day Observed every year on ____.
A. 10 November
B. 24 December
C. 21 December
D. 24 January

69.DRDO observed 63rd Foundation Day on which date recently?
A. 1 Jan 2021
B. 10th Dec 2020

C. 7th Jan 2021
D. 5th Dec 2020

70. The SDGs were set up in 2015 by the United Nations General Assembly and are intended to be achieved by which of the following year?
A. 2040
B. 2030
C. 2025
D. 2050

71. In Nov 2020, Sonu Sood has been appointed the State Icon of which of the following states by the Election Commission of India (EC)?
A. Punjab
B. Maharashtra
C. Haryana
D. Gujarat

72. Which of the following has become the first UT in country to operationalize Pubic Financial Management System (PFMs) at the district level, in the month of Oct 2020?
A. Chandigarh
B. Jammu & Kashmir
C. New Delhi
D. Puducherry

73. Recently in the month of Oct 2020, which of the following companies has announced its target of 100% renewable electricity across all company owned and controlled operations by the year 2030?
A. Parle Agro
B. PepsiCo
C. Britannia
D. Hindustan Unilever Ltd.

74. Ladakh Buddhist Association has recently (in Dec 2020) celebrated _____ Festival in Leh to mark the beginning of New Year of Buddhist Community?
A. Losar
B. Pang Lhabsol
C. Saga Dawa
D. International Flower Festival

75. The Reserve Bank of India (RBI) has proposed to introduce LCR for Non-Banking Financial Companies (NBFCs) with an asset size of Rs 5,000 crore and above, in the year 2019. What does "C" stand for in the acronym LCR?
A. Coverage
B. Convertible
C. Capital
D. Company

76. Name the Mission that has been recently launched by the Government, in the month of Dec 2020, to promote the quality of products being manufactured in the country?
A. Make in India
B. Brand India
C. Quality India
D. Mission Brand

77. Name the electronic spot platform that has been launched by the BSE recently in Dec 2020 for agricultural commodities through its subsidiary BSE Investments
A. BSEX
B. PILLAR
C. AGRIDEX
D. BEAMSs

78. Which of the following organizations has released Rule for dividend distribution in mutual funds?
A. RBI
B. NABARD
C. SEBI
D. Ministry of Finance

79. Fashion designer Pierre Cardin, who revolutionised fashion in the early 1950s, has recently passed away at the age of 98, in the month of Dec 2020. He belonged to which of the following countries?
A. Germany
B. USA
C. France
D. Canada

80. Which of the following is the aim of Nai Manzil scheme?
A. To match the aptitude of individuals to the demand in the work environment and increase work efficiency of existing daily wage earners by providing them monetary rewards and quality training.
B. To provide high quality teaching to the Postgraduate students and produce Postgraduates with research aptitude and knowledge in the subjects of Modern Science.
C. To benefit the minority youths who do not have a formal school leaving certificate in order to provide them formal education and skills.
D. Both b &c

###ANSWERS###

1. Ans. B.
As per the context of the passage, the term 'hinge' means 'depend entirely on'.
The correct answer is option B.

2. Ans. D.
The term **ubiquitous** means present, appearing or found everywhere.
The correct answer is option D as Omnipresent means to be present everywhere.

3. Ans. B.
The passage states "the latest reports suggest that instead of a mandate or target, the government should focus on an enabling framework for EVs." This makes the statement I false.

Statement II is true because "This marriage of EV and PV is much harder than people think, but concerted action and policies that rethink electricity's ecosystem and pricing can make EVs both greener and cheaper to run."
Statement III is "Until recently, there were moves to ensure that all passenger vehicles sold by 2030 were electric vehicles (EVs)," thus true.

The correct answer is option B.

4. Ans. D.
The correct answer is option E.

5. Ans. C.
The correct answer is option C.

6. Ans. B.
The correct answer is option B.

7. Ans. D.
The meanings of the given options are:

Exhume- to remove a dead body from the ground especially in order to examine how the person died
Entwined- wind or twist together; interweave.

Tangible- that can be clearly seen to exist
Imbibed-to absorb something, especially information
Foresight- the ability to see what will probably happen in the future and to use this knowledge to make careful plans

The correct answer is option D.

8. Ans. A.
Note the meanings of the given options:
Quintessential- being the perfect example of something
Stunned- to make a person very surprised by telling him/her some unexpected news
Flawed- not perfect, or containing mistakes
Primitive- very simple and not developed
Of the given alternatives, option A fits the context aptly.
The correct answer is option A.

9. Ans. D.
The correct sequence is BDACEF. Statement B introduces the subject of the passage, that is, theory proposed by William G Perry based on undergraduate students in college. This is followed by part D where college students face the journey of four major stages. In statement A, he elaborates on the four stages. This is followed by statement C and D which talks about further about the scheme proposed by William G Perry. Part F concludes the passage by showing the final result of the theory. Thus, the logical sequence BDACEF.

The correct answer is E.

10. Ans. B.
The correct sequence is BDACEF. Statement B introduces the subject of the passage, that is, theory proposed by William G Perry based on undergraduate students in college. This is followed by part D where college students face the journey of four major stages. In statement A, he elaborates on the four stages. This is followed by statement C and D which talks about further about the scheme proposed by William G Perry. Part F concludes the passage by showing the final result of the theory. Thus, the logical sequence BDACEF.

The correct answer is B.
11. Ans. D.
The correct sequence is BDACEF. Statement B introduces the subject of the passage, that is, theory proposed by William G Perry based on undergraduate students in college. This is followed by part D where college students face the journey of four major stages. In statement A, he elaborates on the four stages. This is followed by statement C and D which talks about further about the scheme proposed by William G Perry. Part F concludes the passage by showing the final result of the theory. Thus, the logical sequence BDACEF.

The correct answer is D.
12. Ans. C.
The correct sequence is BDACEF. Statement B introduces the subject of the passage, that is, theory proposed by William G Perry based on undergraduate students in college. This is followed by part D where college students face the journey of four major stages. In statement A, he elaborates

on the four stages. This is followed by statement C and D which talks about further about the scheme proposed by William G Perry. Part F concludes the passage by showing the final result of the theory. Thus, the logical sequence BDACEF.

The correct answer is C.
13. Ans. A.
The correct sequence is BDACEF. Statement B introduces the subject of the passage, that is, theory proposed by William G Perry based on undergraduate students in college. This is followed by part D where college students face the journey of four major stages. In statement A, he elaborates on the four stages. This is followed by statement C and D which talks about further about the scheme proposed by William G Perry. Part F concludes the passage by showing the final result of the theory. Thus, the logical sequence BDACEF.

The correct answer is A.
14. Ans. A.
The phrase means to waste a great deal of time or effort in creating something that already exists. Thus, the correct answer is A.
15. Ans. B.
The phrase means to prevent yourself losing the respect of other people. Thus, the correct answer is B.
16. Ans. B.
The phrase means to make progress; to become stronger or more popular. Thus, the correct answer is B.
17. Ans. A.
The phrase means a quality of uncomplaining stoicism. Thus, the correct answer is A.
18. Ans. D.

The given sentences are correct. Hence, the answer is option E.

19. Ans. D.

In the first sentence, we need an adjective after the adverb 'quite'. Thus, it should be 'candid' and not 'candidly'.

In the second sentence, instead of 'impacting' it should be 'impactful'.

The correct answer is D.

20. Ans. A.

In part B, we need a noun and not an adjective. So, the sentence demands 'controversy' and not 'controversial'.

In Part C, after the modal should, we need a verb in its base form, so, it should be 'give' and not 'gave'. So, the correct parts are A and D. Thus, the correct answer is A.

21. Ans. C.

Pattern of the series is:

$\dfrac{158}{2} + 1 = 79 + 1 = 80$

$\dfrac{80}{2} + 2 = 40 + 2 = 42$

$\dfrac{42}{2} + 3 = 21 + 3 = 24$

$\dfrac{24}{2} + 4 = 12 + 4 = 16$

$\dfrac{16}{2} + 5 = 8 + 5 = 13$

Hence, 18 is the wrong number.

22. Ans. D.

Pattern of the series is:

$44 + (1^3 − 1) = 44$
$44 + (2^3 − 2) = 50$
$50 + (3^3 − 3) = 74$
$74 + (4^3 − 4) = 134$
$134 + (5^3 − 5) = 254$
$254 + (6^3 − 6) = 464$

23. Ans. A.

$39 × 0.5 − 0.5 = 19$
$19 × 1.0 − 1.0 = 18$
$18 × 1.5 − 1.5 = 25.5$
$25.5 × 2.0 − 2.0 = 49$
$49 × 2.5 − 2.5 = 120$

Hence, 118 is the wrong number.

24. Ans. D.

The pattern of the series is:

$8 + 2^2 = 12$
$12 + 3^2 = 21$
$21 + 4^2 = 37$
$37 + 5^2 = 62$
$62 + 6^2 = 98$
$98 + 7^2 = 147$

Hence, the wrong number is 33.

25. Ans. C.

The pattern of the series is:

$130 + 2 = 132$
$132 − 4 = 128$
$128 + 8 = 136$
$136 − 16 = 120$
$120 + 32 = 152$
$152 − 64 = 88$

Hence, the wrong number is 133.

26. Ans. B.

Common solution:

Days	Number of students attended online classes
Monday	2500 × 0.12 = 300
Tuesday	2500 × 0.15 = 375
Wednesday	2500 × 0.20 = 500
Thursday	2500 × 0.18 = 450
Friday	2500 × 0.24 = 600
Saturday	2500 × 0.11 = 275

Number of students attended online class from class IX on Monday = 300 × 0.16 = 48

Number of students attended online class from class IX on Thursday = 450 × 0.24 = 108

Required sum = 48 + 108 = 156

Hence, option B is correct.

27. Ans. A.

Common solution:

Days	Number of students attended online classes
Monday	2500 × 0.12 = 300
Tuesday	2500 × 0.15 = 375
Wednesday	2500 × 0.20 = 500
Thursday	2500 × 0.18 = 450
Friday	2500 × 0.24 = 600
Saturday	2500 × 0.11 = 275

Average number of students attended online classes on Tuesday and Saturday together = $\dfrac{375 + 275}{2}$ = 325

Average number of students attended online classes on Monday and Friday together = $\dfrac{300 + 600}{2}$ = 450

Required difference = 450 – 325 = 125

Hence, option A is correct.

28. Ans. D.

Common solution:

Days	Number of students attended online classes
Monday	2500 × 0.12 = 300
Tuesday	2500 × 0.15 = 375
Wednesday	2500 × 0.20 = 500
Thursday	2500 × 0.18 = 450
Friday	2500 × 0.24 = 600
Saturday	2500 × 0.11 = 275

Number of boys who attended online classes on Wednesday = $\dfrac{500}{3 + 2} \times 3$ = 300

Number of boys who attended online classes on Friday = $\dfrac{600}{2 + 1} \times 2$ = 400

Required sum = 300 + 400 = 700

Hence, option D is correct.

29. Ans. C.

Common solution:

Days	Number of students attended online classes
Monday	2500 × 0.12 = 300
Tuesday	2500 × 0.15 = 375
Wednesday	2500 × 0.20 = 500
Thursday	2500 × 0.18 = 450
Friday	2500 × 0.24 = 600
Saturday	2500 × 0.11 = 275

Required ratio = 2500 × (15 + 24) : 2500 × (12 + 18)

= 39 : 30 = 13 : 10

Hence, option C is correct.

30. Ans. D.

Common solution:

Days	Number of students attended online classes
Monday	2500 × 0.12 = 300
Tuesday	2500 × 0.15 = 375
Wednesday	2500 × 0.20 = 500
Thursday	2500 × 0.18 = 450
Friday	2500 × 0.24 = 600
Saturday	2500 × 0.11 = 275

Number of students attended online classes on Monday and Tuesday together = 300 + 375 = 675

Difference = 675 – 600 = 75

Required percentage = $\dfrac{75}{600} \times 100$ = 12.5%

Hence, option E is correct.

31. Ans. A.

Cost price for Mansi = 241.8 × $\dfrac{5}{6}$ = 201.5

Cost price for Ashutosh = 201.5 × $\dfrac{100}{130} \times \dfrac{100}{124}$

⇒ Rs. 125

32. Ans. B.

Using the data provided in the question, we get:

$\frac{80}{100} \times$ Marked Price = 9000

Marked price = Rs. 11250

Cost Price for Ramesh = Rs. 9000

Profit = $\frac{30}{100} \times$ 11250 = 3375

Selling price = 9000 + 3375 = Rs. 12375

33. Ans. B.

Let the distance travelled by man in each side = x km

Downstream speed = Upstream speed + 2 × Speed of the stream = 6 + 2 × 2 = 6 + 4 = 10 km/hr, then

According to question,

$\frac{x}{6} - \frac{x}{10} = 3$

⇒ 4x = 180

⇒ x = 45

So, the distance travelled by man in downstream direction = x = 45 km.

34. Ans. B.

Let the capacity of the tank = 240x litres (LCM of 48 and 30)

Efficiency of filling pipe = $\frac{240x}{48}$ = 5x litres/hr

Efficiency of emptying pipe B = $\frac{240x}{30}$ = 8x litres/hr

According to question

(8x – 5x) × 2.5 = 60

⇒ 3x × 2.5 = 60

⇒ x = 8

Hence, the capacity of tank = 240x = 240 × 8 = 1920 litres.

35. Ans. D.

Distance covered by train A till 12 pm = 60 km

Remaining distance = 320 – 60 = 260 km

Required time to meet each other =

$\frac{260}{60 + 70} = \frac{260}{130}$ = 2 hours

So, time when two trains meet each other = 12:00 pm + 2 hours = 2:00 pm

36. Ans. B.

Initial ratio of milk and water = 5 : 4

Let total amount of mixture be 9 litres and x litres mixture is taken out and replaced with water.

Using the data provided in the question, we get

$\frac{5 - \frac{5x}{9}}{4 - \frac{4x}{9} + x} = \frac{1}{1}$

⇒ 45 – 5x = 36 + 5x

⇒ 10x = 45 – 36 = 11

⇒ x = 1.1

So, part of mixture replaced = $\frac{1.1}{9} = \frac{11}{90}$

37. Ans. D.

Let present age of Manish brother's age be x years.

∴ Present age of Manish = (x + 28) years

7 years ago, Manish age was = (x + 28 – 7) years = (x + 21) years

7 years ago, Manish's brother's age = (x – 7) years

According to question,

x + 21 = 2(x – 7)

⇒ x + 21 = 2x – 14

⇒ 2x – x = 14 + 21

⇒ x = 35

Hence, Manish brother's Present age is 35 years.

38. Ans. B.

Let the 1st number be a and the 2nd number be b.

Therefore,

0.60a – 0.30b = 36

2a – b = 120..... (1)

And

b – a = 60..... (2)

On solving equations (1) and (2), we get
a = 180 and b = 240

Required percentage = $\dfrac{\left(\dfrac{240-180}{240}\right)}{}$ × 100
= 25%

39. Ans. C.
Let radius of circle is R m
$\therefore 2 \times \dfrac{22}{7} \times R = 396$
$\Rightarrow R = 63$ m

Side of square = $\dfrac{63}{3}$ x 4 = 84 m

$\therefore$ Length of rectangle = $\dfrac{80}{100} \times 84$
= 67.2 m
$\therefore$ Area of rectangle = 67.2 × 40
= 2688 m²

40. Ans. D.
Let the consecutive odd numbers be o, (o + 2), (o + 4) and (o + 6) and the consecutive even numbers be e, (e + 2), (e + 4) and (e + 6)
Given,
o + (o + 2) + (o + 4) + (o + 6) = 32 × 4
$\Rightarrow$ 4o + 12 = 128
$\Rightarrow$ 4o = 116
$\Rightarrow$ o = 29
Given,
e + (e + 2) + (e + 4) + (e + 6) = 37 × 4
$\Rightarrow$ 4e + 12 = 148
$\Rightarrow$ 4e = 136
$\Rightarrow$ e = 34
 Hence, the required average = [(o + 6) + (e + 6)]/2 = (o + e)/2 + 6
= (29 + 34)/2 + 6 = 63/2 + 6 = 37.5.

41. Ans. A.
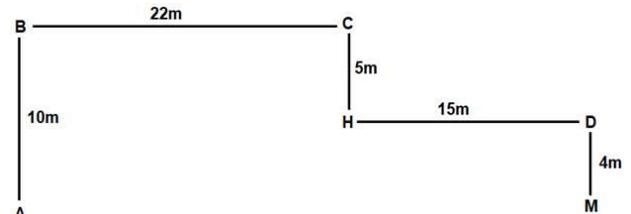
42. Ans. D.
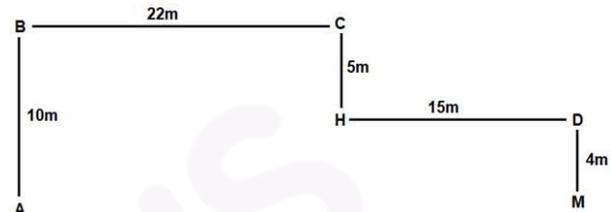
43. Ans. C.
725174538
2 is added to first four digits of the number and 1 is added to last five digits of the number.
947385**649**

44. Ans. C.

Floor	People	Colour
7	B	Brown
6	F	White
5	G	Blue
4	E	Pink
3	A	Yellow
2	C	Red
1	D	Black

45. Ans. D.

Floor	People	Colour
7	B	Brown
6	F	White
5	G	Blue
4	E	Pink
3	A	Yellow
2	C	Red
1	D	Black

46. Ans. A.

Floor	People	Colour
7	B	Brown
6	F	White
5	G	Blue
4	E	Pink
3	A	Yellow
2	C	Red
1	D	Black

47. Ans. B.

Floor	People	Colour
7	B	Brown
6	F	White
5	G	Blue
4	E	Pink
3	A	Yellow
2	C	Red
1	D	Black

48. Ans. C.

| Floor	People	Colour
7	B	Brown
6	F	White
5	G	Blue
4	E	Pink
3	A	Yellow
2	C	Red
1	D	Black

49. Ans. C.
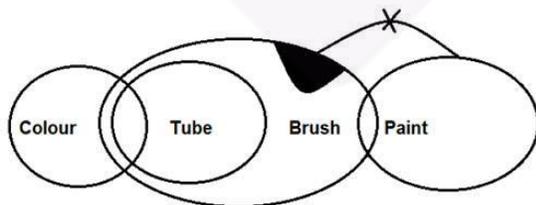
50. Ans. D.
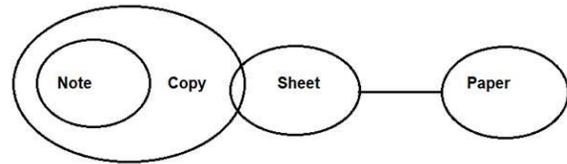
51. Ans. A.

52. Ans. B.

53. Ans. C.

RADIATION
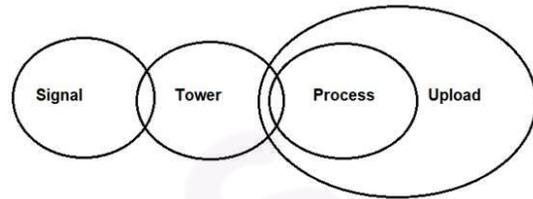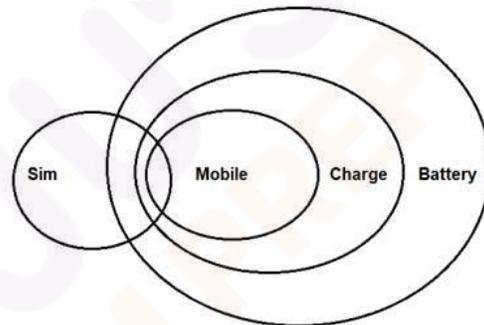
54. Ans. D.
We can infer that the air in the open will be infested with flies, bugs and other insects. Naturally, on the impact, these creatures will die on the propeller or blade. We can also infer that the machine will make a noise when it comes to a stop. Hence D is the answer.

55. Ans. A.
Only I can be correctly inferred. The given statement says that the past decade has seen the biggest financial crisis in a century. Static living standards and the fact that public

spending has been cut are two of the most obvious deductions from such a statement. II and III cannot be inferred as both contain extraneous information that is in no way related to what is given. Therefore, option A is the correct answer.

56. Ans. B.
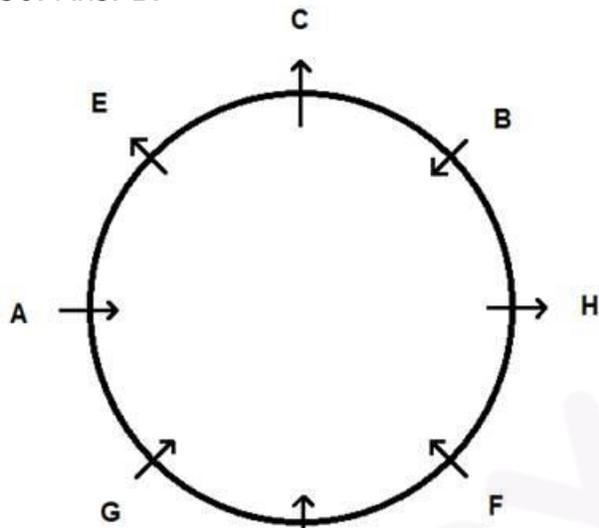
57. Ans. B.
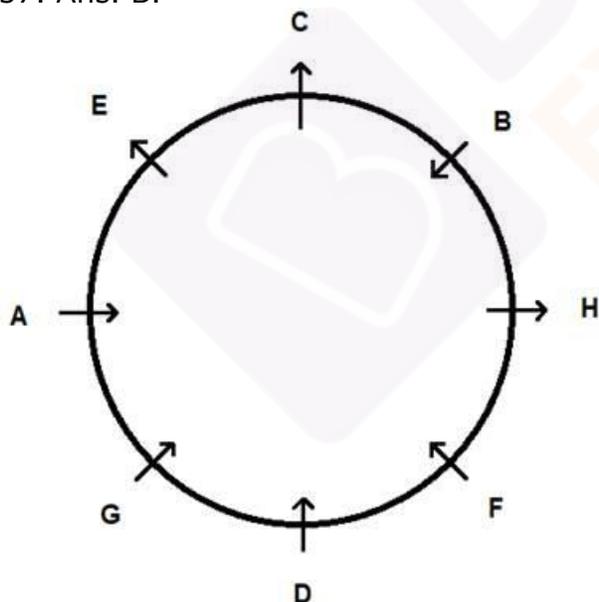
58. Ans. D.
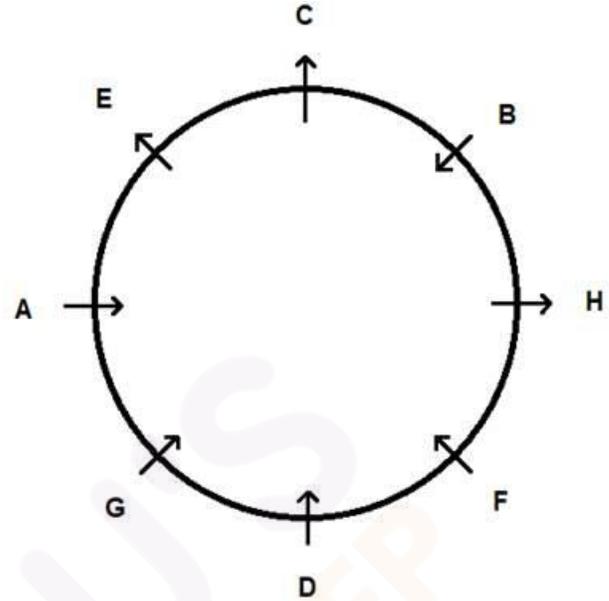
59. Ans. D.
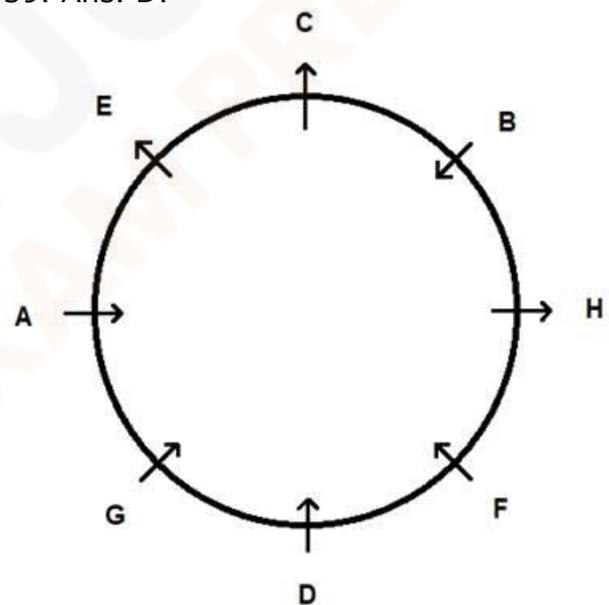
60. Ans. B.
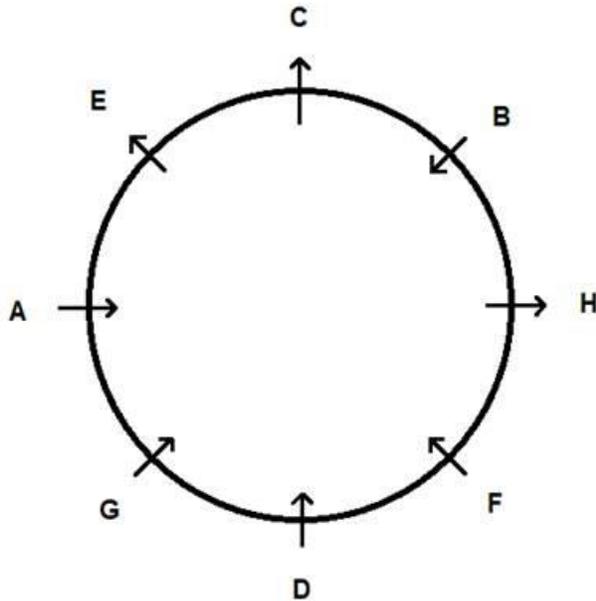
61. Ans. A.
* The iconic Indian superhero - Chacha Chaudhary has been declared as the mascot of the Namami Gange Programme.
* The decision was taken during the 37th Executive Committee meeting of the National Mission for Clean Ganga, NMCG.
* As a step towards this NMCG has tied-up with Diamond Toons to develop and distribute comics, e-comics and animated videos.
* NMCG has been focusing on youth as part of its outreach and public communications efforts as they are the impellers of change.

62. Ans. D.
• The Pension Fund Regulatory and Development Authority (PFRDA), the pension regulator of India, has doubled the minimum net worth criterion for pension fund managers to Rs 50 crore from Rs 25 crore.

63. Ans. C.
• In a move to honour Bangladesh's founding father, the United Nations Educational, Scientific and Cultural Organisation (UNESCO) has decided to introduce a prestigious award in the name of Bangabandhu Sheikh Mujibur Rahman.
• The name of the award is "UNESCO-Bangladesh "Bangabandhu Sheikh Mujibur Rahman" International Prize in the Field of Creative Economy."
• The award will be given every two years and the prize money will be US $50,000. It will be given for the first time in November next year at the 41st General meeting of UNESCO.

64. Ans. A.
• Union Education Minister Ramesh Pokhriyal Nishank presented the first copy of his inspirational book "Pioneer of Humanity: Maharishi Arvind" to President Ram Nath Kovind at the Rashtrapati Bhavan.
• The book is in Hindi with the title 'Manavta ke Praneta Maharishi Arvind'.
• Shri Arvind was a person fully devoted to Indian culture, Indian values, Indian nationalism and Indian philosophy.
• Through this book, I have wanted to convey his philosophy and thinking in very simple language to the younger generation of the country and the world.

65. Ans. D.
* Union Minister of Earth Sciences Dr. Harsh Vardhan virtually inaugurated India's highest Meteorological Centre at **Leh**.
* It is now **country's highest meteorological centre**.
* India presently has **28 meteorological centres** spread across the country. These centres serve to provide accurate and timely weather-related information to India Meteorological Department (IMD).

* This new meteorological centre will provide weather forecasts over short (**3 days**), medium (**12 days**) and extended (**1 month**) periods.
* Hon'ble Member of Parliament from Ladakh, **Shri Jamyang Tsering** Namgyal and Lieutenant Governor of Ladakh, **Shri R K Mathur** were also present there.

66. Ans. A.
• Umesh Sinha has been appointed as the deputy election commissioner in the Election Commission of India.
• Sinha, a 1986-batch IAS officer (retired) of the Uttar Pradesh cadre, is at present the secretary-general in the commission.
• The Appointments Committee of the Cabinet has approved extension in the term of reemployment of Sinha as deputy election commissioner on contract basis for a period of six months beyond December 31, 2020.
• Sinha is a part of a committee set up by the Election Commission to look into the issue of revising the election expenditure of candidates during campaigning.

67. Ans. A.
• India's first Lithium refinery is soon going to be set up in Gujarat.
• It will be set up with the investment of around Rs 1,000 crore from India's largest power trading and renewable energy company Manikaran Power Limited
• The refinery will process Lithium ore to produce battery-grade material.

68. Ans. B.
The National Consumer Rights Day is celebrated on December 24. This year's theme is Safe & Healthy Food: Combating Food Adulteration. It was on this day that the Consumer Protection Act was enacted in 1986.

69. Ans. A.
• DRDO observed the 63rd Foundation Day of its establishment on 1st January 2021.
• DRDO was established in 1958 with just 10 laboratories to enhance the research work in Defence sector and was tasked with designing and developing cutting edge defence technologies for Indian Armed Forces.
• Today, DRDO is working in multiple cutting edge military technology areas, which include aeronautics, armaments, combat vehicles, electronics, instrumentation, engineering systems, missiles, materials, naval systems, advanced computing, simulation, cyber, life sciences and other technologies for defence.

70. Ans. B.
• The Sustainable Development Goals or Global Goals are a collection of 17 interlinked global goals designed to be a "blueprint to achieve a better and more sustainable future for all".
• The SDGs were set up in 2015 by the United Nations General Assembly and are intended to be achieved by the year 2030.

71. Ans. A.
• Actor Sonu Sood has been appointed as state icon of Punjab by the Election Commission of India (ECI).
• The decision of honouring Sonu Sood with the title comes after he earned laurels for his humanitarian work during the lockdown.
• Sonu has been helping migrant workers reach their hometowns amid the coronavirus pandemic. He also helped people by giving them face masks, food, mobile phones and more.

72. Ans. B.
• Jammu and Kashmir has become the first union territory in the country to

operationalise public financial management system (PFMS) at the district level.

• The launch of these offices in Jammu and Kashmir will result in improved programme administration and management, direct payment to beneficiaries and greater transparency and accountability in use of public funds.

• The PFMS state directorate J-K was established in 2016 like in the rest of the states and the UTs for operationalising PFMS and now it has emerged as the first UT in the country in terms of expanding the PFMS to districts which is a significant achievement for all the stakeholders.

73. Ans. B.

• PepsiCo Inc announced a new target to source 100% renewable electricity across all of its company owned and controlled operations globally by 2030 and across its entire franchise and third-party operations by 2040.

• With PepsiCo's scale, the transition has the potential to reduce approximately 2.5 million metric tons of greenhouse gas (GHG) emissions by 2040, the equivalent of taking more than half a million cars off the road for a full year.

74. Ans. A.

• Ladakh is celebrating its first Losar Festival after it's become a Union Territory.

• It is the most important festival for Tibetan Buddhism in Ladakh which marks the beginning of the New Year. It is celebrated in Tibet, Nepal, and Bhutan and each has its own traditions.

• The festival is held annually on the 1st Day of the Eleventh Month of Tibetan Calendar correlating to a date in the Gregorian calendar.

• During the festival, Ladakhi Buddhists make a religious offering before their deities in the domestic shrines or in the Gompas.

75. Ans. A.

• Here, LCR stands for "Liquidity Coverage Ratio".

• The Reserve Bank of India (RBI) has proposed to introduce "Liquidity Coverage Ratio" (LCR) for Non-Banking Financial Companies (NBFCs) with an asset size of Rs 5,000 crore and above.

• LCR mandates financial institutions to maintain a minimum level of high quality assets to meet urgent liquidity obligations.

• The proposed new norm was made in a draft circular on the "Liquidity Risk Management Framework for NBFCs and Core Investment Companies (CICs)" to be adopted by all deposit taking NBFCs, non-deposit taking NBFCs with an asset size of Rs 100 crore and above, and all CICs registered with the Reserve Bank.

• As per the draft circular, the LCR has been set to keep a stock of HQLA (high quality liquid asset) to survive any acute liquidity stress scenario lasting for 30 days.

76. Ans. B.

• The government is all set to launch a 'Brand India' mission, focused on the promotion of quality products that are manufactured in the country.

• The move, being piloted by the Piyush Goyal-led commerce and industry ministry, is based on similar policies in other countries, including the US, Switzerland, Germany and France, which regulate claims made to goods produced in their jurisdiction.

• The idea is linked to the extent of local production with countries such as Switzerland offering the tag to service

sector companies if they are headquartered there.

77. Ans. D.

• Bombay Stock Exchange (BSE) launched 'BSE E-Agricultural Markets Ltd (BEAM)' for agricultural commodities through its subsidiary BSE Investments Ltd.

• This will act as a national level, institutionalised, electronic, transparent commodity spot trading platform with vision to create a single market.

• BSE is Asia's oldest stock exchange and world's 10th largest stock exchange.

78. Ans. C.

• Sebi introduced labelling norms for the dividend options of mutual funds which will come into effect from 1st April 2021.

• Under the new norms, mutual funds will have to rename dividend options as income distribution cum capital withdrawal effective April 1, 2021.

79. Ans. C.

• Pierre Cardin was an Italian-born naturalised-French fashion designer. He is known for what was his avant-garde style and Space Age designs.

• Pierre Cardin, who died on 30th December 2020, at the age of 98, was the ultimate entrepreneurial designer.

• He understood the importance his exclusive haute couture shows played in stoking consumer desire and became an early pioneer of licensing. His name emblazoned hundreds of products, from accessories to home goods.

• French fashion designer Pierre Cardin possessed a wildly inventive artistic sensibility tempered by a stiff dose of business sense.

80. Ans. C.

• Nai Manzil, a scheme launched on 8th August 2015, aims to benefit the minority youths who do not have a formal school leaving certificate in order to provide them formal education and skills, and enable them to seek better employment and livelihoods in the organised sector.

• The Scheme has been approved with the cost of Rs 650.00 Crore for five years with 50% funding from the World Bank.

• This is the first World Bank supported programme for minority welfare being managed by the Ministry of Minority Affairs.

• The scheme is also significant as it combines education with skills for school dropouts which will significantly enhance their employability.

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